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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,668	11/26/2003	Yan Liu	20002/17587	8787
34431 7590 10/31/2007 HANLEY, FLIGHT & ZIMMERMAN, LLC 150 S. WACKER DRIVE SUITE 2100 CHICAGO, IL 60606			EXAMINER NGO, CHUONG D	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/723,668

Applicant(s)

LIU ET AL.

Examiner

Chuong D. Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The disclosure is objected to because of the following informalities: The specification does not include a summary of the invention as set forth in 37 CFR 1.73. Appropriate correction is required.

2. Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, it is indefinite as to what and to whose “a number of loops value”, line 2, and “a remaining count value” are. Claims 12,21,22 and 39 also have the same problem.

Relative to applicant’s remarks, it is respectfully submitted that without defining in the claims, it is unclear what applicant regard as the “a number of loops value” and “a remaining count value” in the claims other than those disclosed in the specification.

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-10,12-18,20-27,29-37,39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-10,12-18,20-2.,29-37,39 are clearly directed to an invention that merely performs calculations and manipulations of data. In order for such a claimed invention to be

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statutory, the claimed invention must accomplish a practical application. That is the claimed invention must transform an article or physical object to a different state or thing, or produce a useful, concrete and tangible result. See “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility”, OG Notices: 22 November 2005. Also see *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. It is clear from the claims that the invention merely performs calculations and manipulations of data. The claimed invention does perform any physical transformation. The inputs are numbers and the output is also a number. Further, the result of the invention is a “delay time” which is a mere numerical value without a practical application recited in the claims to make the result useful and tangible. Therefore, the claimed inventions are directed to non-statutory subject matter as the claimed inventions fail to accomplish a practical application. Further, since the claims appear to cover every substantial practical application, they are also directed to a preemption of the claimed manipulations and calculations of data.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,5-10,12,15-18,21-26,29 and 32-37 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Shal et al. (6,064,646).

As per claims 1,12,21,24-26 and 29, Shal et al. discloses in figure 2 a generation of a delay time including determining (54,60) a number of loops value associated with a delay time and at least one characteristic value associated with a counter (since the claims does not clearly define as to what or whose the loop value is, a determination of some most significant bits/digits of the sum of the first counter value and the on time, see abstract, line 14, is considered the claimed determination of number of loops), determining (54,60) a remaining count value based on the number of loops value (since the claims does not clearly define as to what or whose the remain count value is, a determination of the remaining significant bits/digits of the sum of the first counter value and the on time, is considered the claimed determination of remaining count value), and generating the delay time with the counter (62) and a comparator (58) based on the number of loops value and the remaining count value (when the first counter value equals the register value triggering the first interrupt service, abstract, 15-18) as claimed.

As per claim 5-7,15,16,22,23 and 32-34 the first counter value (abstract, line 14) is corresponding to the claimed initial count value that the determination of the number of loops values and the remain count values are clearly based on.

As per claims 8 and 9,17,35 and 36, Shal et al. also discloses polling (reading) the counter for comparison.

As per claim 10,18 and 37 a determining (54) of the corresponding some most significant bits/digits of the on time (which indicated the number rollovers of the remaining least significant

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bits/digits) is corresponding to the claimed determining a number or rollover events to be generated by the counter.

8. Claims 11,19,20,27,28 and 38-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Shal et al. (6,064,646).

It is noted that Shal et al. does not specifically disclose the generation of delay time for generating the delay time prior to a boot process, in a non-interrupt environment or being instructions stored in a flash memory. However, these limitations are merely obvious fields of applications and obvious environments implementing a generation of delay time of Shal et al. and thus are obvious from Shal et al.

9. Claims 1,5-10,12,15-20,29 and 32-37 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chovin et al. (4,928,720).

As per claims 1,10,12,18,29 and 37 Chovin et al discloses in figure 1 a generation of a delay time including determining a number of loops value (the number of hours that would be set to the counter 14) associated with a delay time and at least one characteristic value associated with a counter (13,12,11), determining a remaining count value (the number of minutes, second and 1/16 seconds that would be set to the counter (13,12,11) based on the number of loops value, and generating the delay time with the counter based on the number of loops value and the remaining count value as claimed.

As per claim 5-7,15,16,32,33 and 34, the initial count value is seen as one of the number of loop count value or the remaining count value.

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As per claims 8, 9, 17, 35 and 36, Chovin et al. also discloses polling (reading) the counter for display.

10. Claims 11, 19, 20 and 38-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Chovin et al. (4,928,720).

It is noted that Chovin et al. does not specifically disclose the generation of delay time for generating the delay time prior to a boot process, in a non-interrupt environment or being instructions stored in a flash memory. However, these limitations are merely obvious fields of applications and obvious environments implementing a generation of delay time of Chovin et al. and thus are obvious from Chovin et al.

11. Applicant's arguments filed on 08/21/2007 have been fully considered but they are not persuasive.

It is respectfully submitted that without defining in the claims, it is unclear what applicant regard as the "a number of loops value" and "a remaining count value" in the claims other than those disclosed in the specification.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



/Chuong D Ngo
Primary Examiner
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10/26/2007